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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,038	06/23/2004	Jun Fujita	120178	2236

25944 7590 03/07/2007  
OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
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WARD, JESSICA LEE

ART UNIT	PAPER NUMBER
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1733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/500,038

Applicant(s)

FUJITA ET AL.

Examiner

Jessica L. Ward

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/30/07, Election.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/23/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 1-5, in the reply filed on 1/30/07 is acknowledged. The traversal is on the ground(s) that the method inherently results in the product and thus a technical relationship is present between the method and product. This is not found persuasive because lack of unity was established between Apparatus and Method claims, not Product and Method. Furthermore, the Examiner never asserted that a technical relationship failed to exist between the Apparatus and Method claims but instead based lack of unity on the special technical features, which the Apparatus and Method claims share, not defining a contribution over the prior art (PCT Rule 13.2), as set forth in paragraph 2 of the Restriction Requirement dated 1/11/07. To reiterate:

The technical features shared by Groups I and II are a tubular container with an elastic sheet and a hydrostatic pressure medium charged between the tubular container and the elastic sheet (note the material worked upon and the manner by which the apparatus cooperates with the material worked upon does not further limit the scope of an apparatus claim, as set forth in MPEP 2115). JP 10-197429 to Muto et al. teaches a tubular container 11 with an elastic sheet 21 and a hydrostatic pressure medium charged between the tubular container and the elastic sheet (Figure 4; abstract; on-line translation, sections [0007, 0014]). Therefore, unity of invention is lacking and restriction is proper.

Additionally, the Examiner directs Applicant's attention to the newly cited Kaminaga et al., Nishioka, Yoshimura et al. and Mori et al. references that were used as primary references, in paragraphs 7-9 and 12 below, to reject the claims of the present invention and therefore also

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show that the technical features shared by Groups I and II of the present invention do not define a contribution over the prior art.

The requirement is still deemed proper and is therefore made **FINAL**.

***Claim Objections***

2. Claim 2 is objected to because of the following informalities:

Claim 2, line 2: --be-- should be inserted before "contacted".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, it is unclear if Applicant intends for the elastic sleeves to be part of the Apparatus. Based on the present specification, it appears that the sleeves are part of the Apparatus; however, the present claim language does not establish that the sleeves are part of the Apparatus. Applicant is asked to clarify. It is suggested to amend the claim to state:

A device for bonding ceramic structural bodies with a bonding agent comprising:

a plurality of elastic sleeves;

a tubular container with an elastic sheet disposed between the elastic sleeves and the tubular container;

wherein a set of ceramic structural bodies provided with the bonding agent between bonding surfaces of the structural bodies and provided with the elastic sleeves disposed on a peripheral surface of a set of the structural bodies are placed in the tubular container with the elastic sheet disposed between the elastic sleeves and the tubular container and the device charges a hydrostatic pressure medium between the tubular container and elastic sheet to press and bond the structural bodies.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Muto et al. (JP 10-197429, of record).

As to claim 1, Muto teaches a tubular container 11 with an elastic sheet 21 and a hydrostatic pressure medium charged between the tubular container and the elastic sheet (Figure 4; abstract; on-line translation, sections [0007, 0014]). Consequently, the device of Muto would be capable of bonding ceramic structural bodies with a bonding agent and elastic sleeves disposed on a peripheral surface of a set of the structural bodies.

It is noted that the material worked upon (ceramic structural bodies, bonding agent, elastic sleeves) by the apparatus and the manner by which the apparatus cooperates with the material worked upon does not further limit the scope of an apparatus claim (MPEP 2115). And as for the features recited in the preamble ('for bonding ceramic structural bodies with a bonding agent'), this is a recitation of intended use and a manner in which an apparatus is intended to be used does not further limit the scope of an apparatus claim (MPEP 2114).

If Applicant amends the claim to positively recite the elastic sleeves as part of the apparatus, note that Muto teaches elastic sleeves/bodies 22 such that the elastic sheet 21 is disposed between the elastic sleeves 22 and the tubular container 11 (abstract; Figure 4; section [0007] of on-line translation).

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Regarding claim 2, it is noted once again that the material worked upon (elastic sleeves) does not further limit the scope of an apparatus claim; however, the sleeves of Muto contact the ceramic structural bodies and would be capable of being compressed at a high pressing speed then a low pressing speed. Regarding claims 3 and 5, it is noted once again that the material worked upon does not further limit the scope of an apparatus claim. Regarding claim 4, it is noted once again that the material worked upon (elastic sleeves) does not further limit the scope of an apparatus claim; however, Muto teaches the sleeves and sheet being rubber.

7. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaminaga et al. (US 5772946).

As to claim 1, Kaminaga teaches a tubular container 3 with an elastic sheet 4/5 and a hydrostatic pressure medium charged between the tubular container and the elastic sheet (column 9, lines 26-49).

It is noted that the material worked upon (ceramic structural bodies, bonding agent, elastic sleeves) by the apparatus and the manner by which the apparatus cooperates with the material worked upon does not further limit the scope of an apparatus claim (MPEP 2115). And as for the features recited in the preamble ('for bonding ceramic structural bodies with a bonding agent'), this is a recitation of intended use and a manner in which an apparatus is intended to be used does not further limit the scope of an apparatus claim (MPEP 2114). However, Kaminaga teaches the device being used to bond ceramic structural bodies with a bonding agent (abstract; column 11, lines 41-50).

Regarding claim 2, it is once again noted that the material worked upon (elastic sleeves) does not further limit the scope of an apparatus claim. Regarding claims 3 and 5, it is noted once

again that the material worked upon by the apparatus does not further limit the scope of an apparatus claim. Regarding claim 4, it is once again noted that the material worked upon (elastic sleeves) does not further limit the scope of an apparatus claim; however, Kaminaga teaches the elastic sheet 4/5 being rubber (column 9, line 62; column 10, line 31-32).

8. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishioka (JP 4-329104).

As to claim 1, Nishioka teaches a tubular container with an elastic sheet 3 and a hydrostatic pressure medium charged between the tubular container and the elastic sheet (abstract; Figures 1-2).

It is noted that the material worked upon (ceramic structural bodies, bonding agent, elastic sleeves) by the apparatus and the manner by which the apparatus cooperates with the material worked upon does not further limit the scope of an apparatus claim (MPEP 2115). And as for the features recited in the preamble ('for bonding ceramic structural bodies with a bonding agent'), this is a recitation of intended use and a manner in which an apparatus is intended to be used does not further limit the scope of an apparatus claim (MPEP 2114). However, Nishioka teaches the device being used to bond ceramic structural bodies (abstract) and therefore the device would be capable of bonding ceramic structural bodies with a bonding agent.

If Applicant amends the claim to positively recite the elastic sleeves as part of the apparatus, note that Nishioka teaches elastic sleeves/bodies 2 such that the elastic sheet 3 is disposed between the elastic sleeves and the tubular container (abstract; Figures 1-2).

Regarding claim 2, it is noted once again that the material worked upon (elastic sleeves) does not further limit the scope of an apparatus claim; however, the sleeves of Nishioka contact

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the ceramic structural bodies and would be capable of being compressed at a high pressing speed then a low pressing speed. Regarding claims 3 and 5, it is noted once again that the material worked upon does not further limit the scope of an apparatus claim. Regarding claim 4, it is noted once again that the material worked upon (elastic sleeves) does not further limit the scope of an apparatus claim; however, Nishioka teaches the sleeves and sheet being rubber.

9. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshimura et al. (US 5507896).

\*If Applicant amends the claims to positively recite the elastic sleeves as part of the apparatus, the following rejection is set forth to expedite prosecution:

As to claim 1, Yoshimura teaches a device comprising a plurality of elastic sleeves 10/11/12 (disposed on a peripheral surface of a set of ceramic structural bodies 3) that are placed in a tubular container 19 with an elastic sheet 4 disposed between the elastic sleeves and the tubular container wherein the device charges a hydrostatic pressure medium between the tubular container and the elastic sheet (to press and bond the structural bodies) (Figures 3-4; column 2, lines 55-57; column 4, lines 1-8; column 4, lines 38-57; column 4, lines 60-65).

*\*The Examiner would like to point out that Applicant's claimed elastic 'sleeves' are not really 'sleeves' in the true sense of the word, as clearly shown in Figure 3(b) of the present invention ('sleeves' 7 on surface of ceramic structural bodies 21). Therefore, one would readily appreciate that the elastic 'sleeves' 10/11/12 of Yoshimura (Figure 3; column 2, lines 55-57; column 4, lines 61-62) clearly read on Applicant's claimed elastic 'sleeves.'*

It is noted that the material worked upon (ceramic structural bodies, bonding agent) by the apparatus and the manner by which the apparatus cooperates with the material worked upon



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does not further limit the scope of an apparatus claim (MPEP 2115). And as for the features recited in the preamble ('for bonding ceramic structural bodies with a bonding agent'), this is a recitation of intended use and a manner in which an apparatus is intended to be used does not further limit the scope of an apparatus claim (MPEP 2114). However, Yoshimura teaches the device being used to bond ceramic structural bodies, as discussed in the previous paragraph, and therefore the device of Yoshimura would be capable of bonding ceramic structural bodies with a bonding agent.

Regarding claim 2, the sleeves of Yoshimura contact the ceramic structural bodies and would be capable of being compressed at a high pressing speed then a low pressing speed. Regarding claims 3 and 5, it is noted once again that the material worked upon does not further limit the scope of an apparatus claim.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura et al. as applied to claim 1 above and further in view of Matsui et al. (US 4749421).

As to claim 1, if it is not taken that the sheet 4 of Yoshimura is elastic, it would have been obvious to use such a material for the sheet 4 of Yoshimura, because such is well known and conventional in the art of bonding ceramic structural bodies when using a device that applies hydrostatic pressure to the bodies, as taught by Matsui (Figure 1; column 3, lines 31-50).

Regarding claim 4, Yoshimura teaches the elastic sleeves 10/11/12 being rubber (column 2, lines 55-57; column 4, lines 61-63) but it is unclear as to the material of the elastic sheet 4 of Yoshimura in view of Matsui. It would have been obvious to use rubber for the elastic sheet 4 of Yoshimura in view of Matsui because such is well known and conventional in the art of bonding ceramic structural bodies when using a device that applies hydrostatic pressure to the bodies, as taught by Matsui (Figure 1; column 3, lines 31-50).

12. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (US 5370760) in view of Yoshimura et al.

\*If Applicant amends the claims to positively recite the elastic sleeves as part of the apparatus, the following rejection is set forth to expedite prosecution:

As to claim 1, Mori teaches a device comprising a plurality of sleeves 14/17 (disposed on a peripheral surface of a set of ceramic structural bodies 13) that are placed in a tubular container 22 with an elastic sheet 21 disposed between the sleeves and the tubular container wherein the device charges a hydrostatic pressure medium between the tubular container and the elastic sheet (to press and bond the structural bodies) (Figures 1-2; column 4, line 32 – column 5, line 2).

It is unclear as to whether the sleeves 14/17 of Mori are elastic. It would have been obvious to use elastic sleeves for the sleeves of Mori because such is known in the art of bonding ceramic structural bodies when using a device that applies hydrostatic pressure to the bodies, as taught by Yoshimura (Figures 3-4; column 2, lines 55-61; column 4, lines 60-65), where elastic sleeves ensure that uniform pressure is applied to all surfaces of the ceramic structural bodies so as to prevent warping.

*\*The Examiner would like to point out that Applicant's claimed elastic 'sleeves' are not really 'sleeves' in the true sense of the word, as clearly shown in Figure 3(b) of the present invention ('sleeves' 7 on surface of ceramic structural bodies 21). Therefore, one would readily appreciate that the elastic 'sleeves' 14/17 of Mori (Figure 1) in view of Yoshimura clearly read on Applicant's claimed elastic 'sleeves.'*

It is noted that the material worked upon (ceramic structural bodies, bonding agent) by the apparatus and the manner by which the apparatus cooperates with the material worked upon does not further limit the scope of an apparatus claim (MPEP 2115). And as for the features recited in the preamble ('for bonding ceramic structural bodies with a bonding agent'), this is a recitation of intended use and a manner in which an apparatus is intended to be used does not further limit the scope of an apparatus claim (MPEP 2114). However, Mori teaches the device being used to bond ceramic structural bodies, as discussed in the previous paragraphs, and therefore the device of Mori would be capable of bonding ceramic structural bodies with a bonding agent.

Regarding claim 2, the sleeves of Mori contact the ceramic structural bodies and would be capable of being compressed at a high pressing speed then a low pressing speed. Regarding claims 3 and 5, it is noted once again that the material worked upon does not further limit the scope of an apparatus claim.

13. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. and Yoshimura et al. as applied to claim 1 above, and further in view of Matsui et al.

As to claim 1, if it is not taken that the sheet 21 of Mori is elastic, it would have been obvious to use such a material for the sheet 21 of Mori, because such is well known and

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conventional in the art of bonding ceramic structural bodies when using a device that applies hydrostatic pressure to the bodies, as taught by Matsui (Figure 1; column 3, lines 31-50).

Regarding claim 4, Mori in view of Yoshimura teaches the elastic sleeves 14/17 being rubber (Yoshimura at column 2, lines 55-57; column 4, lines 61-63) but it is unclear as to the material of the elastic sheet 21 of Mori in view of Matsui. It would have been obvious to use rubber for the elastic sheet 21 of Mori in view of Matsui because such is well known and conventional in the art of bonding ceramic structural bodies when using a device that applies hydrostatic pressure to the bodies, as taught by Matsui (Figure 1; column 3, lines 31-50).

### *Conclusion*

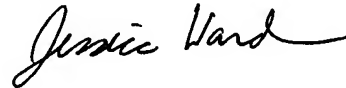
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. Ward whose telephone number is 571-272-1223. The examiner can normally be reached on Mon-Fri between 9AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Jessica L. Ward  
Primary Examiner  
Art Unit 1733

A handwritten signature in cursive script, reading "Jessica Ward", written in black ink.